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ABSTRACT

This teacher's manual is designed to complement the student manual Guidelines for Keeping Cornell Farm Account Book. The first part of the teacher manual contains lists of concepts that should be taught within each of the fifteen units of instruction. The remainder of the teacher's manual provides the fifteen units of instruction included in the student manual along with the answers to questions within each unit. The fifteen units of instruction are (1) Why Keep Records?, (2) Operating Expenses, (3) Labor Records, (4) Interest and Debt Payments, (5) Capital Purchases and Improvements, (6) Milk Sales, (7) Crop Sales, (8) Livestock Sold, (9) Miscellaneous Receipts, (10) Summary of Farm Operating Expenses, (11) Summary of Farm Inventory and Farm Net Worth, (12) Calculation of Depreciation, (13) Summary of Farm Receipts and Expenses, (14) Labor Requirements for Livestock and Crops and the Farm Business Chart, and (15) Electronic Accounting Programs. Each unit of instruction is divided into four sections: objectives of the unit, introductory information and questions, procedures, and sample entries. (LRA)

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Guidelines for Keeping the Cornell Farm Account Book

Teacher Manual

By Dale J. Paterson

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To the Teacher Introduction

The manual *Guidelines for Keeping the Cornell Farm Account Book* offers a unique approach to learning about record keeping rather than merely providing specific rules for making entries. The text encourages students to seek logical reasons for recording facts about the business. Flexibility is advocated so that persons will put cash and income data where it is most useful to them. Hence the word *guidelines* is used in the title to indicate that options are open to the record keeper.

Hopefully, certain concepts will become established that will make the systematic recording of financial transactions as much a part of the farm business as carrying out proper tillage practices or having a good machinery maintenance and repair program. Therefore, a listing of concepts to convey is provided for each of the fifteen units on the next few pages. In addition, the teacher's manual includes suggested or specific answers to questions and completed sections from the *Farm Account Book*.

Each unit of both the student and teacher manuals contains the following sections:

Objectives of the unit — states the intended results of the unit's instruction and activities to aid in assessing whether the instruction has been successful.

Introductory information and questions — introduces the topic and induces student thought and analysis.

Procedures — provides guidelines for classifying entries and directions for making entries in the appropriate section of the *Farm Account Book*.

Sample Entries — lists information to be used by the students to complete each unit. In some cases, especially with summary sections, the entry information is recorded in previous units so it is not repeated. Also, to avoid "busy work" by the students, only one or two months of sample entries and year-end totals are given in units 2, 3, and 4. Students who do not read directions carefully may be puzzled that the entries for two months do not equal the year-end total. This problem can be avoided by reviewing the student manual before work begins.

Three units show forms typically received by the farm operator. The student will be required to transfer information from the *Farm Account Book* to the "Statement of Farm Worker Earnings" in Unit 3 and the "Annual Mortgage Statement" in Unit 4, and transfer information to the *Farm Account Book* from the Milk Check Statement in Unit 6.

The student manual is written so that most of the work can be carried out independently; however, the teacher should be available to answer questions and clarify points. A thorough introduction of each unit is also suggested. For some topics, readily available references have been cited to aid the teacher in discussing information and answering questions.

When all of the students have completed the introductory section for the unit, stop them from working further and review the information and answers. All concepts should be understood before the students proceed to the procedures and ground rules and complete the sample entries.

Unit 1
Why Keep Records?

1. Records are necessary for the **profitable** operation and management of any farm business. (To teach this concept, use examples of farms with and without records to show the effect of record keeping on the farm's level of success. Ask a successful farmer to speak to the class about the importance of records. Before the guest lecture, have the students work through this short unit. The students will then be more knowledgeable and better prepared to ask pertinent questions.)
2. The *Cornell Farm Account Book* is a record of farm business operations. All expenses and receipts of the farm business are entered in this book.

Unit 2
Operating Expenses

1. An **operating expense** is the cost of any item purchased for the farm business that is **used up** over the course of the year and does not increase the value of the farm.
2. Some expenses are incurred by **both** the farm and the household. Examples are electricity, telephone, and automobile expenses. During the year, the total amounts of these expenses (farm plus personal share) are entered in the *Farm Account Book*. Then, the totals for the year are adjusted to eliminate the personal share of these expenses.
3. All expenses are entered in the account book at the time the cost of the item is **paid** regardless of delivery date or application date (e.g., fertilizer purchased in December for delivery in April would be entered in December).

Unit 3
Labor Records

1. Labor costs are *operating expenses* paid for services rendered on the farm. They do not include the owner-operator or other **unpaid** labor of family members.
2. Allowances are goods and services given to a farm employee as part of his/her wage. Their value is included when computing minimum wage.
3. A deduction is an amount of the gross cash wage held back by an employer for a specific purpose, such as Social Security and income tax withholdings.
4. Students should understand the relationships between total earnings, gross cash wage, allowances, deductions, and cash wage paid. The relationships are illustrated as follows:

   total earnings = gross cash wage + allowances
   gross cash wage = cash wage paid + deductions
5. The labor costs are classified as either regular or seasonal. **Regular** labor is labor that is hired on a *continuous* basis throughout the year. It may be full or part-time. **Seasonal** labor is labor hired for a few days or weeks during the year when the work load is more than the regular labor force can handle.
6. Paid family labor can be either regular or seasonal labor. Minimum wage laws do not apply to paid family members under 21 years old.

Note: At the time of publication, Social Security deduction was computed at 6.13%.

Reference materials necessary for completing this unit:

Farmers' Tax Guide, Internal Revenue Service

Rural Manpower Issues (Loose-leaf notebook), Dept. of Ag. Economics, Warren Hall, Cornell University, Ithaca, N.Y. 14853.

Farm Income Tax Management and Tax Reporting (see most recent publication), Ag. Economics Extension, Warren Hall, Cornell University, Ithaca, N.Y. 14853.

Concepts to Convey Teaching Suggestions

Concepts to Convey Teaching Suggestions

Unit 4 Interest and Debt Payment

1. Loan payments include both an amount paid to reduce the principal plus an interest charge on the unpaid balance of the loan.
2. Interest charged on a loan is the cost of borrowing money and is recorded as an **operating expense.**
3. The principal payments are not recorded as an expense. Instead, the **total** amount of a loan is charged to the business as either an operating expense (e.g., money borrowed to buy fertilizer) or an annual depreciation (e.g., recovery of the cost of a tractor).
4. The repayments of practically all loans are amortized.
5. Two basic plans for loan amortization developed by the Federal Land Bank are the **decreasing payment plan** and the **equal payment plan** (or standard plan). If the decreasing payment plan is used, "the borrower pays the same amount on the principal, together with the interest on the unpaid portion of the loan, on each installment date. The equal-payment or standard plan requires the borrower to pay the same total amount for each installment date. Much of the payment in early years goes toward interest" (from *Principles of Agricultural Finance* by Lyle L. Wicks).

Unit 5 Capital Purchases Improvements and

1. Any improvement made or item purchased for the farm that has a useful life or *more than one year* is classified as a **capital expense.**
2. The cost of a capital expense is charged to the farm business in the form of *annual depreciation* over its estimated useful life.
3. All capital expenses are entered in this section of the *Cornell Farm Account Book* regardless of whether they are paid for by cash or credit.
4. When a trade-in is included in the purchase of equipment, the **difference** between the cost of the new item and the value of the trade-in is computed and entered in the account book as the cost of the new item. This difference in value is called "Boot Money."
5. Soil and water conservation expenses may be either capital or operating expenses. If the conservation expense was a *below ground improvement,* it is a **capital expense.** All other conservation and soil expenses are operating expenses.

Unit 6 Milk Sales

1. A farmer does not receive all the money from his/her milk sales. Deductions associated with milk sales, such as hauling, purchases from the milk coop., advertising, coop. dues, and investments, are taken from the farmer's milk check **before** it is received.
2. For convenience, all deductions from the milk check are recorded on the **same page** as the milk receipts.

Unit 7 Crop Sales

1. Crop sales includes the receipts received from all crops, whether a cash crop or surplus crop. Receipts for crop insurance proceeds should also be listed in this section.

Unit 8
Livestock Sold

1. To record livestock sales, the distinction must be made as to what **type** of animal was sold: home-raised, purchased, calf, or livestock held primarily for sale.
2. The animals are classified because each type is recorded differently on the owner's income tax return.
3. On the record, a mark should be made to indicate if the animal sold was held for two years or more (for example: Ruth (#103 [2+]). This information is also needed for income tax purposes.
4. It is unlikely that a dairy farmer would record any animals as *livestock held primarily for resale.*

Unit 9

Receipts

1. All farm receipts that do not fit previous categories are entered in the Miscellaneous Receipts section of the *Cornell Farm Account Book.*
2. There may be a tendency to include personal receipts, but this section of the account book is for **farm** miscellaneous recipts only.
3. Included in the section are **all** miscellaneous receipts, whether capital or noncapital (operating).

Unit 10
Summary of Farm Operating Expenses

1. All operating expenses are summarized on one page to determine the **total** operating expenses for the year.
2. Some expenses are **shared** by both the farm business and the owner's household. Expenses such as electricity, telephone, and automobile are in this category.
3. The percentages of personal share and farm share vary with each farm. The individual owner must estimate the personal share.

Unit 11
Summary of Farm Inventory and Farm Net Worth

1. A business asset is anything the business **owns** that has a commercial value at the time inventory is taken.
2. Liabilities are outstanding **debts** that the business has at the time inventory is taken.
3. Business assets minus liabilities equals the **net worth** or equity capital of the business.
4. Interest on farm net worth is an opportunity **cost** charged to the business. The interest rate varies with economic conditions.

Unit 12
Calculation of Depreciation

1. A number of assets lose value over time; such as machinery and buildings. This loss in value is known as **depreciation.**
2. Depreciation is computed by comparing end-of-year inventories to beginning-of-year inventories.
3. Depreciation is a farm business **expense.**

Concepts to Convey Teaching Suggestions

Concepts to Convey Teaching Suggestions

Unit 13 Summary of Farm Receipts and Expenses

1. Two measures of profit are calculated in the *Cornell Farm Account Book:* farm income, and labor and management income.
2. Farm income is the total farm receipts less the total farm expenses.
3. Labor and management income is farm income less an interest charge of 7% on the owner's farm net worth. This measure of profit represents the return to the owner for his/her labor and management.
4. Unpaid family labor is recorded as a business expense to allow **valid comparison** between farms with no unpaid family labor and farms that have a significant amount of unpaid family labor.
5. An increase or decrease in livestock inventory or feed and supply inventory is recorded as a receipt or expense, respectively.

Unit 14 Labor Requirements for Livestock and Crops and the Farm Business Chart

1. To be successful in any business, including farming, the business manager must identify the strengths and weaknesses of the enterprise and employ appropriate management practices.
2. *Work units* and *man equivalents* are used to measure the production efficiency of a farm business.
3. A work unit is the amount of work a person will accomplish in a **10-hour day** given average farm conditions and usual farm tasks.
4. A man equivalent is 12 months of **full-time employment** of one person. For part-time and seasonal labor, 230 hours is considered equal to one month of full-time employment. Total man equivalents of a farm business represent both paid and unpaid labor.

Related Activities

Discuss with the students the strong and weak aspects of the business, as determined by the Farm Business Chart, and how this information may influence future management decisions.

Unit 15 Electronic Accounting Programs

1. An alternative to manual farm accounting, such as the *Cornell Farm Account Book,* is electronic accounting.
2. Electronic accounting programs are computerized systems of farm accounting available to farm owners.
3. The advantages of an electronic accounting program far outweigh the disadvantage of cost.

Objectives

At the completion of this unit, the student will be able to:

1. List five reasons for keeping accurate and up-to-date farm records.
2. Make the decision to keep farm records when given the opportunity.

Why keep records?

Picture two farms: although of similar size and resources, they differ in production and profit. One is successful; the other is just making it or falling further behind each year. The main reason for the differing rates of success is **management.** Management is the ability to make good use of one's resources — money, labor, machinery, animals, and land.

What provides the basis for sound management decisions? Farm records, past experience, and knowledge provide the manager a basis for making decisions. If you have ten cows and a few pieces of machinery, you might not need records. However, an average farm may have $100,000 to $200,000 in assets, and some farms have an investment of $1,000,000 or more. These farms need a **record keeping system** to keep track of everything. It would be impossible to keep track of all your machinery, livestock, labor, and money without records. The farm records that should be kept are inventory and depreciation, cash account, field records, and production records on livestock and crops. Most successful farmers have a record keeping system to back up their management decisions, and you should have one, too.

What is needed to determine—

1. Pounds of milk produced per year by each cow?

   production records

2. Farm income?

   accounting records, inventory records

3. Social Security payments?

   labor records

4. Taxable income?

   accounting records and depreciation schedule.

For number one, **production records** are necessary. For the second, you need **accounting records** and at least two years' inventories. In each case, to determine information that every farm owner must know, **records** are needed.

We have already hit upon three reasons for keeping farm records: governmental regulation (Social Security payments and income tax); providing a complete financial picture of the business (farm income and taxable income); and determining the strong or weak points of the business (production per animal, yield per acre). List as many additional reasons as you can for keeping farm records.

1. obtaining credit
2. estate settlement
3. adjusting insurance claims
4. partnership operation
5. budgeting for changes
6. control of expenses

Unit 1

Why Keep Records?

Unit 1

Why Keep Records?

What record keeping system to use?

A variety of record books and record keeping systems are available to the farmer. One option especially popular in New York State is the *Cornell Farm Account Book*. It was prepared so the farmer would have an organized, complete book for recording all expenses and receipts connected with the farm.

This manual provides **guidelines** for recording information in the *Cornell Farm Account Book*. Each unit provides step-by-step instructions for completing forms and also explains new concepts and terminology. (An appendix on the last page lists and defines all new terms.) Take your time to complete each unit neatly, accurately, and fully. This manual can serve as a useful reference in the years ahead. Remember: Good record keeping is a key to success in any business.

Take a look at the "Contents." Note that the units fall into the following sections:

- units 2–5: how to record **expenses,**
- units 6–9: how to record **receipts** (income),
- units 10–14: how to determine and record **total production** and 'take home' **income**
- unit 15: **alternative methods** of record keeping.

No matter what record keeping system you use, the information and terminology presented in this manual will help you keep good records.

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Objectives

At the completion of this unit, the student will be able to:

1. Identify operating expenses from a list of farm business transactions.
2. Correctly enter farm operating expenses in the *Cornell Farm Account Book*.

Operating expenses: Where the money goes

A **farm operating expense** (or noncapital expense) is the cost of an item purchased *for the farm business* that has an expected useful life of less than one year. Items that have an initial cost of less than $100, such as nonpower hand tools, are also included as operating expenses. Write down five expenses that would fit the definition of farm operating expense.

1. feed (see column titles)
2. truck, tractor repair
3. gasoline and oil
4. breeding fees
5. seeds and plants

Would you classify the purchase of a claw hammer as an operating expense? YES or NO

Place an **X** before each item that is an operating expense.

	Item	Amount	Quantity
X	fuel	$ 85.00	170 gallons
X	salt	3.90	100 lbs.
	plow	1,400.00	1
X	dairy supplies	5.50	
X	tractor repair	23.80	
	cement blocks	675.00	1,800 blocks
X	feed	36.40	400 lbs.
	drainage tile	273.00	1,000 feet
X	fence pliers	14.00	1 pair

Some operating expenses are shared by the farm and the household. Examples are electricity, telephone, and automobile expenses. As these expenses are paid during the year, the **total** amounts are entered in the *Farm Account Book*. At the end of the year, the total for each expense is adjusted to eliminate the personal share (the household share).

Suggested classifications of farm operating expenses are given on the back cover of the *Cornell Farm Account Book* and on page 6 of this unit to help you classify sample entries. Read and understand **all** procedures and ground rules before making any entries. Always use **pencil** when making entries in records.

Unit 2

Operating Expenses

Unit 2

Operating Expenses

How to enter operating expenses

1. For each expense, enter the month and day that **payment** was made.
2. If an item was purchased in quantity, write down the number or amount purchased in the column titled *Quantity.*
3. In the column titled *Kind of expense,* write a brief description of no more than three or four words of the expense and to whom the money was paid. For example:

   tractor repair–Disbrow
   diesel fuel–Agway
   stove bolts–Smith's Hardware
4. The cost of each item is recorded in column 1.
5. Classify the expense and enter the amount in the appropriate column (2 through 20). (Thus, each expense is entered twice: in column 1 and one other.) For example: purchased alfalfa seed would be entered in columns 1 and 12, "Seeds and plants." For help in classifying entries, refer to the Suggested Classification page.
6. Follow steps 1 through 5 for each of the sample entries.
7. Enter only **farm** operating expenses in this workbook. Household or personal expenses should not be entered since they are **not** farm business expenses.
8. In the case of electricity, telephone, and auto expenses (which are used by both the farm business and the household), enter the **full amount** of the expense in the correct column. At the end of the year, the personal share of these expenses will be deducted. These adjustments are discussed in Unit 10, *Summary of Farm Operating Expenses,* beginning on page 35.*
9. Enter each column's total for the year.
10. Add the values for columns 2 through 20 and enter the figure in column 1. This data will be forwarded to the summary in Unit 10.

FARM OPERATING EXPENSES (Continued)

Month Day	Quantity	Kind of expense	1 Enter all items in this column	2 Feed bought	3 Feed bought	4 Machine hire	5 Truck, tractor and other machine expense	6 Auto expense	7 Gasoline and oil	8 Breeding fees
		Total this month or to date brought forward*								
2/3	6000 lbs	Dairy Concentrate (Agway)	375 00	375 00						
2/3	300 gal	Diesel Fuel (Agway)	150 00						150 00	
2/5		Truck Repair (Smith)	70 00				70 00			
2/6	2	Spreader Chain Links (Smith)	5 00				5 00			
2/8		Town and County Taxes	360 00							25 60
2/10		Breeding Fee (EAIC)	25 00							
2/11		Telephone (N.Y. Telephone)	23 00							
2/15		Electricity (Niagara Mohawk)	143 00							
2/17		Hacksaw Blades (Smith)	8 00							
2/20		Truck Insurance (Agway)	37 00							
2/21	30 lbs.	Alfalfa Seed	55 00							
2/25	350 gal.	Gasoline (Agway)	200 00						200 00	
Total for year (to page 36)			3714 00	1680 00	100 01		3000 00	600 00	1800 00	900 00

Unit 2

Operating Expenses

Sample entries

Date	Description	Amount	Quantity
2/3	Dairy concentrate (Agway)	$375.00	6,000 lbs.
2/3	Diesel fuel (Agway)	$150.00	300 gal.
2/5	Truck repair (Smith)	$ 70.00	
2/6	Spreader chain links (Smith)	$ 5.00	
2/8	Town and county tax	$360.00	
2/10	Breeding fee (EAIC)	$ 25.00	
2/11	Telephone (N.Y. Telephone)	$ 23.00	
2/15	Electricity (Niagara Mohawk)	$143.00	
2/17	Hacksaw blades (Smith)	$ 8.00	
2/20	Truck insurance (Agway)	$ 37.00	
2/21	Alfalfa seed (Agway)	$ 55.00	30 lbs.
2/25	Gasoline (Agway)	$200.00	350 gal.

Year end total for each column

Column	Total	Column	Total
1	Sum 2–20		
2	$16,800	12	$1,200
3	100	13	2,000
4	0	14	800
5	3,000	15	1,700
6	600	16	1,000
7	1,800	17	1,500
8	900	18	1,000
9	940	19	0
10	300	20	1,000
11	2,500		

FARM OPERATING EXPENSES

9 Veterinary and medicine	10 Other livestock expense	11 Lime and fertilizer	12 Seeds and plants	13 Spray and other crop expense	14 Land, building, and fence repair	15 Taxes	16 Insurance	17 Electricity	18 Telephone	19	20 Miscellaneous
						360 00					
								143 00	23 00		8 00
			55 00				37 00				
940 00	300 00	2500 00	1200 00	2000 00	800 00	1700 00	1000 00	1500 00	1000 00		1000 00

Unit 2

Operating Expenses

Suggested classification of farm expenses

This classification of farm expenses into a few broad groupings can be of help to you in two ways: (1) it suggests groupings that you can use from year to year and thus make valid comparisons with other years, and (2) it is a check list of items to prevent overlooking some expenses before closing your book for the year.

Columns 2 and 3 Feed bought

Dairy farms:

Column 2 Concentrate

Antibiotics
Grains
Minerals
Mixed feed
Molasses
Processing
Starters
Supplements
Vitamins

Column 3 Non-concentrates

Hay
Green-chop
Silage

Livestock farms:

Separate feed expenses for various kinds of livestock

Column 4 Machine hire

Custom work
Grain drying
Machine rental
Spreading lime & fertilizer
Tiling
Trucking

Column 5 Truck, tractor and other machine expense

Antifreeze
Chains
Equip. repairs
Parts
Small tools
Tires
Tractor repairs
Truck repairs
Truck registration
Welding

Column 6 Auto expense

Antifreeze
Chains
Gasoline
Grease
Insurance
Oil
Registration
Repairs
Service
Tires

Column 7 Gasoline and oil

Gasoline
Grease
Oil

Column 8 Breeding fees

Breeding fees
Breeding supplies
Semen

Column 9 Veterinary & medicine

Medicines
Vaccines
Veterinary fees
Veterinary supplies

Column 10 Other livestock expense

Bedding
Breed assoc. dues
Dairy supplies
DHIC dues & fees
Milk house supplies
Milk house fuel
Registration & transfers
Washing materials
Water
Whitewash

Column 11 Lime and fertilizer

Include cost of materials only, enter spreading under machine hire.

Column 12 Seeds and plants
Inoculation
Plants
Seeds
Seed treatment

Column 13 Spray & other crop expense

Bees expense
Certification
Crop containers
Fungicides
Herbicides
Insecticides
Harvest supplies
Planting supplies
Maple enterprise sup.
Twine and wire
Storage
Enter cost of custom application under machine hire.

Column 14 Land, building & fence expense

Building repairs
Cement
Drainage repair
Electrical repair
Ground maintenance
Roofing
Water systems rep.

Column 15 Taxes
Farm real estate taxes, town, county and school.

Column 16 Insurance

Crop insurance
Farm liab. ins.
Fire insurance
Livestock ins.
Truck insurance
Workmen's compen.

Column 17 Electricity

Column 18 Telephone

Column 20 Miscellaneous

Accounting fees
Advertising
Cash rent
Consultant fees, farm business
Farm account books
Farm organization dues
Farm papers
Fuel, farm business
Legal fees, farm business
Office supplies
Travel, farm business
Freight

Pages 44–47* Labor record
Farm wages paid, gross & cash
Social Sec. withheld from employees
Social Security payments
Cash cost of board

Page 48* Farm interest & debt payment
Principal payments
Interest payments

Page 49* Capital purchases & improvements
Machinery and equipment:
New machinery and equipment
Farm share of auto and other vehicles
Major overhaul of machines

Real estate:
New buildings and land
Major remodeling
New fences and drains
Well drilling
Land clearing and development
Pond building
Cattle and other livestock:
Dairy cows, heifers, calves and bulls
Other livestock

Page 52* Deductions from milk check

*Page numbers refer to *Cornell Farm Account Book.*

Unit 2

Operating Expenses

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Objectives

At the completion of this unit, the student will be able to:

1. List at least five allowances that may be included in the total earnings of an employee.
2. Illustrate the relationships between total earnings, gross cash wage, allowances, deductions, and cash wage paid.
3. Correctly enter labor expenses in the appropriate sections of the *Cornell Farm Account Book.*
4. Correctly enter the monthly Social Security liability, and record the Social Security payments when given examples of each.
5. Correctly summarize the labor record section of the *Cornell Farm Account Book.*

Labor records: Why keep them?

Labor costs are **operating expenses** paid for services rendered on the farm. But recording labor costs in the *Cornell Farm Account Book* is more than just recording the cash wage. One reason is that all of the employee's earnings are not necessarily cash. Can you think of items that might be partial payment for labor? Write down examples.

1. _____
2. _____
3. _____
4. _____
5. _____

The goods and services given to the worker by the farm business as partial payment of wages are called **allowances.** What you just noted are five allowances. Why is it necessary to keep a record of allowances?

The value of allowances is added to the cash wage when computing if an employee's wage exceeds the minimum wage, except for **paid** family labor. Minimum wage laws do not apply to paid family members under 21 years old.

An employee does not keep all of her/his cash wage. Part of the wage is held back by the employer or **deducted** from the employee's gross cash wage. What is the most common deduction? (See page 44 of the *Farm Account Book.)*

_____

Can you think of any others?

_____

_____

Goods and services that are **given** to a worker by the farm business as partial payment of wages are _____. Portions of a worker's wage that are *held back* by the employer are called _____. An _____ increases a worker's salary. A _____ decreases a worker's cash wage payment.

The labor costs are classified as either regular or seasonal. **Regular labor** is labor that is hired on a continuous basis throughout the year. It may be full or part-time. **Seasonal labor** is labor hired for a few days or weeks during the year when the work load is more than the regular labor force can handle. The labor section of the *Account Book* has separate sections for recording regular labor and seasonal labor.

Completing the labor section of the *Farm Account Book* at the end of the year does not complete your responsibilities as an employer. Year-end reports must be submitted to the government and to the employees. What reports might you be required to complete?

1. _____
2. _____
3. _____

Unit 3

Labor Records

Unit 3

Labor Records

The current Social Security regulations cover employees who "are paid by an employer **$150 or more** in cash wages during a calendar year, or who have worked for an employer on **twenty or more days** during a calendar year for cash pay on a time basis." This regulation affects whether Social Security deductions are made on seasonal labor costs. Check with your instructor to be sure these regulations have not changed.

By law, an accurate account of the hours an employee works must be kept. Although this is difficult on a farm because of variation in length of the working day from day to day and season to season, you must be as accurate as possible in recording the employee's number of hours worked each pay period. If accurate records are not kept by the employer, it is impossible to determine if the employee is receiving at least the minimum wage.

How to enter labor expenses

1. Enter employee's name, address, and Social Security number. (Be sure to record regular hired labor and seasonal labor in their correct sections.)
2. Record all allowances that are to be part of the employee's total earnings. Adjust all allowances to a *per month* basis. (See employee descriptions.)
3. Enter the date that payment was made, total hours worked, and the gross wage paid in the proper columns.
4. Record the Social Security deduction for each pay period. To compute the deduction, multiply the gross cash wage by the Social Security percentage. (Use 6.13% unless instructed otherwise. Therefore, multiply .0613 by the gross cash wage.)
5. Enter the cash wage paid (net cash wage). The cash wage paid is the gross cash wage minus the Social Security deduction.
6. Follow this procedure (steps 3, 4, and 5) until all wage payments for the employee are recorded.
7. Compute the year's total gross cash wage, Social Security deduction, and cash wage paid. Note: In the sample, only *two months'* payments are recorded so they will not equal the year's total. Use sample entries to complete the *total for year.*
   a. Enter the total for year gross cash wage. (See sample entries.)
   b. Multiply the year's gross cash wage by the Social Security percentage to determine the year's total Social Security deduction. (Use 6.13% unless instructed otherwise.) Record this figure as *total for year.*
   c. To determine cash wage paid, subtract total Social Security deduction from gross cash wage. Enter the amount as **total for year.**

Sample entries

Employee descriptions:

• Bill Jones is a full-time employee. His Social Security number is 132-47-6218, and his address is R.D. #2, Gallatin, N.Y. He lives in the tenant house on the farm with his wife and two children. He takes home two quarts of milk daily and receives a side of beef each year from an animal raised on the farm. Since his wife is not home during the day, Bill eats breakfast and lunch five days per week with the owner and his family. The meals and farm products that Bill receives are valued at current market prices toward his earnings. Use of the tenant house is also considered an allowance and valued at $100 per month with $50 per month in utilities. His weekly cash salary (gross cash wage) is $175.00

• Carol Smith is the owner's 16-year-old daughter. Her Social Security number is 592-65-6559. She works on the farm weekends and holidays throughout the year at $40 per weekend. During the summer she works full time and receives a cash wage of $100 per week. (Social Security is not paid on the employer's spouse or children under 21 years of age.)

• Laura Brown is a 15-year-old student who lives nearby. Her Social Security number is 084-32-4715, and her address is Box 312, Gallatin, N.Y. She does not work regularly on the farm but pitches in when the work load is heavy. (Therefore, she is classified as seasonal labor.) She receives the minimum wage on an hourly basis, with the exception of some piecework.

Year's Data:

Date	Description	Hours	Gross Wage
Jan. 7	labor (Bill)	56	175.00
Jan. 7	labor (Carol)	20	40.00
Jan. 14	labor (Bill)	55	175.00
Jan. 14	labor (Carol)	20	40.00
Jan. 21	labor (Bill)	58	175.00
Jan. 21	labor (Carol)	20	40.00
Jan. 28	labor (Bill)	51	175.00
Jan. 28	labor (Carol)	19	40.00
May 3	labor (Bill)	68	175.00
May 3	labor (Carol)	68	100.00
May 10	labor (Bill)	73	175.00
May 10	labor (Carol)	73	100.00
May 10	labor (Laura) (haying)	20	40.00
May 17	labor (Bill)	76	175.00
May 17	labor (Carol)	76	100.00
May 24	labor (Bill)	75	175.00
May 24	labor (Carol)	75	100.00
May 24	labor (Laura) (clipped 70 cows at $1.50/cow)	30	105.00

Total hours worked for the year

Employee	*Hours*
Bill	2768
Carol	1436
Laura	398

Total gross wage for the year

Employee

Bill: weekly salary times 52 weeks

Carol: 12 weeks during the summer at $100 per week and 42 20-hour weekends/holiday periods at $40 each

Laura: $916

LABOR RECORD

REGULAR HIRED LABOR

Employee's name: Bill Jones

Address: RD#2, Hallaton, N.Y.

Social Security No.: 132-47-6218

Allowances (enter if claimed as part of minimum wage).

House $ 100/mo. | Utilities $ 50/mo. | Food (description and amount) milk $2/mo. | Other Benefits $

Other lodging $ | $ | meals $50/week | $

$ | $ | $13.50/mo. | $

Date	Total hours worked	Gross cash wage	Deductions: Social* Security	Deductions: Other (describe)	Cash wage paid
Jan. 7	56	$175	$ 10.73	$	$164.27
Jan. 14	55	175	10.73		164.27
Jan. 21	58	175	10.73		164.27
Total to carry forward	169	525	32.19		492.81

Date	Total hours worked	Gross cash wage	Deductions: Social* Security	Deductions: Other (describe)	Cash wage paid
Balance carried for.	169	$525	$ 32.19	$	$492.81
Jan. 28	51	175	10.73		164.27
May 3	68	175	10.73		164.27
May 10	73	175	10.73		164.27
May 17	76	175	10.73		164.27
May 24	75	175	10.73		164.27
Total for year	2768	9100	557.83		3542.17

*Enter employee's share in this column.

Total social security liability for this month = two times the amount withheld from all labor employed this month.

Unit 3

Labor Records

Unit 3

Labor Records

LABOR RECORD

REGULAR HIRED LABOR	Allowances (enter if claimed as part of minimum wage).									
Employee's name:	House	$		Utilities	$		Food (description and amount)	$	Other Benefits	$
Address:	Other lodging	$			$			$		$
Social Security No.:		$			$			$		$

Date	Total hours worked	Gross cash wage	Deductions				Cash wage paid	Date	Total hours worked	Gross cash wage	Deductions				Cash wage paid
			Social* Security		Other (describe)						Social* Security		Other (describe)		
		$	$		$		$	Balance carried for.		$	$		$		$
Total to carry forward															
								Total for year							

*Enter employee's share in this column.
Total Social Security liability for this month = 2 times the amount withheld from all labor employed this month.

LABOR RECORD

SEASONAL HIRED LABOR	Allowances (enter if claimed as part of minimum wage).									
Employee's name:	House	$		Utilities	$		Food (description and amount)	$	Other benefits	$
Address:	Other lodging	$			$			$		$
Social Security No.:		$			$			$		$

Date	Total hours worked	Units produced	Gross cash wage	Deductions				Cash wage paid
				Social Security*		Other (describe)		
			$	$		$		$

How to complete the labor record

Summary of wages paid

1. Write on the summary in the spaces provided in the first column, the names of each regular hired employee and seasonal hired employee.
2. Forward to the summary the year's total *Cash wages paid* for each employee.
3. Total the column, and enter the figure as *Total cash wages paid.*
4. Forward the value of any meals (board) provided to an employee. Enter the figure under *Cash value of board furnished.*
5. For each employee, sum the cash wages paid and cash value of board furnished. Enter the sum as *Total.*
6. Sum the figures in the total column, and enter the amount as *total cash wages paid and value of board.* This figure will be forwarded to the Summary of Farm Operating Expenses, page 36.

Summary of Wages Paid

Item	Cash wages paid	Cash value of board furnished	Total
Regular hired labor from page 11	$	$	$
from page 12			
Seasonal hired labor from page 12			
Total cash wages paid			

Total cash wages paid and value of board (page 36)

Summary of Social Security liability and payments on labor

This summary shows the total Social Security paid for all employees each month and total year. The amount paid is the employee's share (the Social Security deduction) plus the employer's share (an amount equal to the employee's Social Security deduction). To complete the summary, use the figures recorded on the Labor Record and given under the sample entries section that follows these procedures. Entries for January through March have been made. Complete the summary for April and May.

1. For each month, add the Social Security deductions for all employees. (For example: January is $42.92 [Bill] + 0 [Carol] + 0 [Laura] = $42.92.)
2. Since the employer pays an equal amount, **double** the monthly amount and enter it as *Total liability this month.* (For example: The total for January is 2 × $42.92 = $85.84.)
3. Add the *Total liability this month* to the *Balance brought forward.* Record the sum as *Balance to carry forward.*
4. Bring this balance forward to the next line.
5. When the balance reaches $200, the employer must pay the government. Record a $200 payment under *Payment made,* and write the date.
6. Subtract the payment amount from the balance and record what's left as *Balance to carry forward.* Carry it forward.
7. Compute the *Total Social Security paid this year.* (Add the total Social Security deductions for all employees, and double the amount.) This sum will be forwarded to page 36.

Unit 3

Labor Records

Unit 3

Labor Records

Sample entries

Employee's Social Security deductions (must be **doubled** before recording in Summary of Wages Paid.)

January, see Labor Record
February, $42.92
March, $46.52
April, $48.61
May, see Labor Record
Total paid this year, see Labor Record

Summary of Social Security Liability and Payments on Labor

	Month	Balance brought forward	Total liability this month	Payment made	date	Balance to carry forward
Enter balance due from last year.	Jan.	$ 50	$ 85.84	$		$ 135.84
	Feb.	135.84	85.84			221.68
Enter amount withheld plus your share of Social Security on all labor hired each month in total liability this month column.	Mar.	221.68		200	3/5	21.68
	Mar.	21.68	93.04			114.72
	Apr.	114.72	97.22			211.94
	May	211.94		200	5/5	11.94
	May	11.94	103.62			115.56
Enter payments actually made this year including payment of last year's balance.						
Make payment when balance reaches $200 and at year's end.						
						$
Total Social Security paid this year (Page 36)				$ 227.94		Balance due on labor hired this year

Statement of wages

Each payday, every employee must be given a statement showing hours worked, rates paid, gross wage, allowances, deductions, and net wages. The following is an example of a wage statement. Complete the statement for Bill Jones for the pay period Sunday, January 7, through Saturday, January 13.

STATEMENT OF FARM WORKER EARNINGS

EMPLOYEE: Bill Jones

WORK PERIOD: Jan. 7 thru Jan. 13 19 79

Wage Rate $ 175 per week

Record of hours worked, and units if piece work:

S	M	Tu	W	Th	F	S
7	8	8	8	8	8	8

Total Hours for Period 55

Allowances: *(if considered as part of the wage)*

House or lodging	$ 23.08
Electricity	$
Fuel	$ 11.54
Meals	$ 8.00
Milk 14 qts.	$ 4.90
Eggs doz.	$
Other meat	$ 6.72
	$
TOTAL ALLOWANCES	$ 54.24

Wages paid:

Net cash wages	$ 164.27
Deductions:	
Social Security	$ 10.73
Other	$
	$
	$
Total deductions	$ 10.73
GROSS CASH WAGES PAID	$ 175.00
TOTAL ALLOWANCES	$ 54.24
TOTAL WAGES	$ 229.24

EMPLOYER: J. R. Smith

Objectives

At the completion of this unit, the student will be able to:

1. Define the terms principal payment and interest charge.
2. Given an annual interest rate, compute the interest charge for monthly payments and quarterly payments.
3. Given the annual interest rate, the amount borrowed, and the installment schedule, compute the interest and principal payments for the first three installments under (a) the equal payment plan and (b) the decreasing payment plan.
4. Complete the Farm Interest and Debt Payments record using data provided and/or computed.
5. Given the appropriate information, compute an Annual Mortgage Statement.

Borrowing money: Paying for its use

Most farms operating today could not function without borrowing money. Borrowing money is actually "renting" money. You must pay a fee (or rent) for its use. Therefore, the total amount of money repaid to the lending agency is the original amount borrowed *plus* the rental fee. The original amount borrowed is called the **principal payment.** The rental fee is called the **interest charge.** The interest is a *cost,* so it is recorded as an **operating expense.**

Complete the following statements: A loan installment consists of a payment toward the principal of the loan plus an interest charge. The principal payment is toward the original amount borrowed. The interest charge is the rent paid for the use of the money.

Depending on the type of loan and loan agency, installment payments probably will be made monthly or quarterly (every three months). The interest rate is usually listed as a total per year (X%). If you are making monthly installments, interest is paid twelve times per year. Each month you pay 1/12 of the annual interest rate (X% ÷ 12). If you are making quarterly installment payments, interest is paid four times per year. Each quarter you pay interest at 1/4 of the annual interest rate (X% ÷ 4).

If you are making *monthly* payments on a $10,000 loan at 10% annual interest, what percent interest applies to *each installment?* .83 % monthly.

If you are making *quarterly* payments on a $10,000 loan at 8% annual interest, what percent interest applies to *each installment?* 2 % quarterly.

Establishing repayment schedules

"**Amortization** is the repayment of a debt by installments which usually include payments on both the principal and the interest" (from *Principals of Agricultural Finance* by Lyle L. Wicks). Two basic amortization plans have been developed by the Federal Land Bank: the **decreasing payment plan** and the **equal payment plan** (or standard plan).

Under the decreasing payment plan, a **set portion** of the principal is paid on each installment date **plus** the interest charge on the **unpaid balance** of the principal. For example: a $25,000 loan may require that $400 per month be paid toward the principal plus an interest charge of 12% on the **unpaid** principal. Each month the unpaid principal decreases by $400; therefore, the interest charge also decreases. The name "decreasing payment plan" clearly describes how the monthly installments change in amount.

Unit 4

Interest and Debt Payments

Unit 4

Interest and Debt Payments

For loan repayment using the equal payment plan, an **equal** amount is paid on each installment date. The **total amount** of the installment is set, as is the interest rate, but the amount of principal and interest **change** with each payment. For example: a $25,000 loan may require a monthly installment of $400 at 12% interest. An interest rate of 12% means that the monthly interest payment will be 1% of the unpaid principal. The first installment will include an interest payment of $250 (1% × $25,000). Since the installment is $400, $150 ($400 − $250) is applied toward the principal. The second installment will include an interest payment of $248.50 (1% × $24,850). How much of the $400 installment is applied toward the principal? _____. Note that the portion of the installment that is applied toward the principal **increases** with each payment.

How to enter interest and debt payments

1. Under *description,* enter the name of the lending agency or type of loan (such as mortgage payment).
2. On the first line, enter the amount of the loan under *Balance* and the *Date* of the first installment.
3. Determine whether the repayment plan is decreasing payment or equal payment, and enter the payments as follows:

a. Decreasing payment plan

(1) Enter the *principal payment* figure in the proper column.
(2) Multiply the interest rate per installment by the balance to determine *interest payment.*
(3) Sum the principal payment and interest payment to determine the *total payment.*
(4) Subtract the principal payment from the balance and enter the amount on the next line.
(5) Repeat these steps for each installment date.

b. Equal payment plan

(1) Enter the *total payment* figure in the proper column.
(2) Multiply the interest rate per installment by the balance to determine the *interest payment.*
(3) Subtract the interest payment from the total payment to find the *principal payment.*
(4) Subtract the principal payment from the balance, and enter the amount on the next line.
(5) Repeat these steps for each installment date.

Sample entries

1. Decreasing Payment Plan

Carl Katz took a $50,000 mortgage on his farm on January 1. Carl and the lending agency agreed upon a quarterly payment of $1,000 plus interest on the unpaid balance. The interest rate is 8% annually. Complete the year's record of interest and principal payments for this mortgage. (Hint: Installments are made 3/1, 6/1, 9/1, and 12/1.)

Nature of Debt		Payments			
Description	Balance	Date	Total payment	Principal payment	Interest payment
	$		$	$	$

2. Equal payment plan

On January 1,. Martha Thomas took a $10,000 Production Credit Loan to purchase a tractor. Martha and the loan agency agreed on a monthly installment of $300, to be paid on the 15th of each month. The interest rate is 10% annually on the unpaid balance of the principal. Complete the record of all interest and principal payments for the first three months' installments. (Hint: Installments are made on 1/15, 2/15, 3/15. ... Note that the first interest payment should be computed for one-half month.)

Nature of Debt		Payments			
Description	Balance	Date	Total payment	Principal payment	Interest payment
Production Credit Loan	$10,000	1/15	$300	$258.34	41.66
" "	9741.66	2/15	300	218.82	81.18
" "	9522.84	3/15	300	290.64	78.36
	9232.20				

3. The annual mortgage statement

Interest and principal payments may be recorded on a monthly or quarterly basis. The standard practice for all lending agencies is to send the borrower a statement at the **end of the year** giving the year's total payments toward interest and principal. Given the following information, complete the Annual Mortgage Statement.

Balance January 1	$50,000
Balance December 31	$46,000
Interest paid	$ 3,880
Payments from escrow	0
Current quarterly payments	$ 1,000 plus interest on unpaid balance

The year's total interest charge of $3,880 will be forwarded to the summary of Farm Operating Expenses, page 36.

ANNUAL MORTGAGE STATEMENT —

ACCOUNT NUMBER	MORTGAGE BALANCE JANUARY 1	MORTGAGE BALANCE DECEMBER 31	INTEREST PAID LAST YEAR	PAYMENTS FROM ESCROW DURING YEAR		
				TAXES	INSURANCE	OTHER
	$ 50,000	$ 46,000	$ 3880	0	0	0

PLEASE REFER TO THIS ACCOUNT NUMBER IN ANY CORRESPONDENCE

IF THE ABOVE INFORMATION DOES NOT AGREE WITH YOUR RECORDS. PLEASE CONTACT OUR AUDITOR

ESCROW → 0

PRINCIPAL AND INTEREST → $ 7880

CURRENT QUARTERLY PAYMENT → $ 1000

WHEN MAKING PAYMENT BY MAIL ALWAYS ENCLOSE YOUR PAYMENT COUPON.

COUNTY TRUST COMPANY

NEW YORK

Unit 4

Interest and Debt Payments

Objectives

At the completion of this unit, you will be able to:

1. Identify capital expenses when given a list of farm business expenses.
2. Classify capital expenses as either machinery and equipment, real estate, or cattle and other livestock expenses.
3. Correctly enter capital expenses in the Capital Purchases and Improvements section of the *Cornell Farm Account Book.*

Farm capital expenses: How long will it last?

In Unit 2, operating expenses — items with an expected useful life of *less than one year* — were entered in the record book on the date purchased. Items that have an expected useful life of *more than one year* are called **capital expenses.** It would be inaccurate to charge their total cost to one year. Instead, a capital expense is shared by the years in which the item is used.

During the year, the total amount of each capital expense is recorded in the account book under Capital Purchases and Improvements when payment is made. At the end of the year after inventory is taken, the amount that machinery, equipment, and real estate have decreased in value can be computed. This amount is called annual depreciation.

Depreciation is the decrease in value of an item owing to causes such as wear, tear, and obsolescence (outdatedness). For example, when you buy a new car, as soon as it is driven from the car lot its value declines. Each year the car loses value until it has only salvage value. *The reduction in value each year is the annual depreciation.*

Remember: Capital expenses are items that have a useful life of **more than one year** and are charged to the farm business in the form of **annual depreciation** over their estimated useful life. Write five examples of capital expenses.

1. See "How to record capital
2. purchases and improvements" (pg. 20).
3. _____
4. _____
5. _____

Your examples should include items such as tractors, wagons, milking equipment, lumber, and cement. How do capital expenses and operating expenses differ?

1. Op. Expenses have useful life of less than 1 yr.
2. Cap. Exp. charged to business through annual dep.

Now that you know what capital expenses are and how they differ from operating expenses, place an X before each **capital expense** in the list below.

	Expense	Amount
X	cinder blocks	$675.00
X	cow	580.00
	feed	246.00
	Expense	**Amount**
	welding rods	$ 8.50
X	water pump	710.00
	shovel	5.00
	oil	20.00
	veterinarian	127.00
X	tractor	20,000.00
X	barn mats	1,867.00

Unit 5

Capital Purchases and Improvements

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Unit 5

Capital Purchases and Improvements

How to record capital purchases and improvements

1. Before entering a capital expense in the record book, determine what type of capital expense it is: machinery and equipment, real estate, or cattle and livestock.
2. Refer to the following suggested classifications of capital purchases and improvements.

Machinery and equipment:

New machinery and equipment
Farm share of auto and other vehicles
Major overhaul of machines

Real estate:

New buildings and land
Major remodeling
New fences and drains
Well drilling
Pond building

Cattle and other livestock:

Dairy cows, heifers, calves and bulls
Other livestock

3. When a trade-in is included in the purchase of equipment, compute the **difference** between the cost of the new item and the value of the trade-in (known as "boot money"). Enter this difference in value as the cost of the new item.
4. Once the capital expense is classified, enter it in the proper column. Be sure to enter the *date* the item was purchased, a *description,* and the *cost.*
5. Soil and water conservation expenses may be classified as either an operating or a capital expense. As a rule, any **below ground expense** is considered a capital expense, and any other soil and water conservation expense is classified as an operating expense.
6. Enter the **total cost** for each classification at the bottom of each column: total machinery and equipment, total real estate, and total cattle and other livestock.

Sample entries

Enter the following capital expenses in the Capital Purchases and Improvements section provided.

Date	Description	Cost
2/22	cow (Lacy)	$ 580.00
2/27	JD tractor $10,000 received $2,000 for IH tractor	
3/12	2 cows	1,020.00
4/1	fuel tank	120.00
4/1	electric motor	100.00
4/9	self-unloading wagon	3,500.00
4/22	disc	1,500.00
4/28	new pole barn	26,500.00

Date	Description	Cost
5/6	exhaust fan	$ 120.00
5/11	water pump	700.00
6/21	plow	1,400.00
6/22	cow #326	540.00
6/29	lumber	700.00
7/3	cows (8)	3,730.00
9/6	cinder blocks	800.00
9/13	heifers (3)	850.00
11/30	springtooth harrow	1,560.00

CAPITAL PURCHASES AND IMPROVEMENTS

When capital items are purchased with credit or cash, enter the full amount contracted to pay when the transaction is made. If a trade is involved enter the amount contracted to pay or "boot money" rather than the list price of the new item.

Machinery and Equipment			Real Estate			Cattle and Other Livestock		
Date	Description	Cost	Date	Description	Cost	Date	Description	Cost
2/27	J.D. Tractor (Used)	$ 8000	4/28	New Pole Barn	$ 24,500	2/22	Lacy	$ 580
4/1	Fuel Tank	120	6/29	Lumber	700	3/12	2 Cows	1020
4/1	Electric Motor	100	9/6	Cinder Blocks	800	6/22	Cow + 526	540
4/9	4ft Unloading Wagon	3500				7/3	Cows (8)	3730
4/22	Disk	1500				9/13	Heifers (3)	850
5/6	Exhaust Fan	120						
5/11	Water Pump	700						
6/21	Plow	1400						
9/30	Springtooth Harrow	1560						
Total machinery and equipment to page 39		$ 17,000	Total real estate to page 39		$ 25,000	Total cattle and other livestock to page 49		$ 6720

Unit 5

Capital Purchases and Improvements

Unit 6

Milk Sales

Objectives

At the completion of this unit, the student will be able to:

1. Define the term receipt.
2. Name two expenses related to milk sales.
3. Correctly enter milk receipts and all related deductions from a monthly milk check in the Milk Sales section of the *Cornell Farm Account Book*.

Income: Milk sales and related expenses

Up to this point, you have been working with farm **expenses**. This section of the account book is for recording cash flowing into the business, which is **receipts.** Anything sold from the farm is classified as a farm receipt.

The Milk Sales section differs from other sections of the *Farm Account Book* because you record both receipts and expenses on the same page. What expenses associated with selling milk would be entered on this page? (Name two.)

1. See Column Headings: Milk Sales -
2. Farm Operating Expenses

How to record milk sales and milk check deductions

Refer to the milk receipts on page 25 and sample entries to complete the record of milk sales.

1. In the first four columns, enter the *month* the milk check is received at the farm, the *total pounds* of milk shipped, the average percent butterfat *(test)* of the milk shipped, and the *gross value of the milk.*
2. Under *hauling,* enter the amount the farmer is charged for trucking his/her milk from the farm to the processing plant.
3. Under *farm supplies purchased,* enter the cost of any dairy supplies purchased from the milk plant (such as strainer cloths, inflations, detergents, etc.).
4. If a farmer purchases insurance through the milk cooperative, the amount of the insurance premium is entered in the column titled *insurance compensation and farm business.* (Premium not purchased by J. R. Smith in following example.)
5. A portion of every farmer's milk check is retained by the milk cooperative to support advertising and milk promotion programs. Enter this deduction under *milk promotion.*
6. Farmers who are members of a milk cooperative must pay dues to the cooperative. The dues are deducted from the milk check. Enter the amount under *coop. dues expense.*
7. A farmer may choose to invest a portion of her/his earnings in the cooperative. Enter the amount deducted from the milk check for the investment certificates in the column titled *coop. investment certificates.* (Option not taken by J. R. Smith.)
8. Part of a farmer's milk check may be automatically transferred to other businesses or lending agencies to repay debts. This procedure saves the farmer from handling the transaction personally and gives the business or lending agency more assurance that the debt payment will be received. Enter deductions of this nature in the column titled *assignments and orders.*
9. Enter the cost of items purchased from the milk coop. or processing plant (such as cheese or butter) for use by the owner's family in the column titled *nonfarm purchases and deductions.*
10. Subtract the total amount of all deductions from the gross value of milk. This is the *amount of check* for the month.
11. Enter the *totals for the year* using the sample entries. These totals will be forwarded to summary pages in later units.

Unit 6

Milk Sales

Sample entries

Totals for the year	
Pounds of milk sold	796,423
Gross value of milk	$78,049.45
Operating expenses:	
Hauling	$ 3,000.00
Farm supplies	400.00
Milk promotion	320.00
Coop. dues expense	550.00
TOTAL Operating Expenses	$ 4,270.00

Investments and nonfarm expenses:	
Coop. investment certificates	$ 25.00
Assignments and orders	3,600.00
Nonfarm purchases	100.00
TOTAL Investments & Nonfarm Expenses	$ 3,725.00
+	
TOTAL Operating Expenses	$ 4,270.00
TOTAL Deductions this year	−$ 7,995.00
TOTAL AMOUNT OF MILK CHECKS RECEIVED THIS YEAR	$70,054.45

MILK SALES

Month	Pounds	Test	Gross value of milk	FARM OPERATING EXPENSES: Hauling	Farm supplies purchased	Insurance compensation & farm bus.	Milk promotion	Coop dues expense	Investments & Non-Farm Expenses: Coop Investment certificates	Assignments and orders	Non-Farm purchases & deductions	Other	Amount of check
Jan	51,800	3.5	$4972 80	$233 10	$ 25 00	$	$ 26 00	$ 40 00	$	$300 00	$ 5 00	$	$4349 70
Feb.	34,200	2.6	5382 90	243 90	25 00		27 00	40 00		300 00	5 00		4752 00
Totals	796,423		78049 45	3000 00	400 00		320 00	550 00					

To page 46 | To page 49 | Operating expenses to page 36.

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HOGAN SOUHAN ALL STAR DAIRY

Name and Patron No. J.R. Smith
Period Jan. 1 through Feb. 1
Lbs. Milk 51,800 Av. Test 3.5 %
N. Y. - N. J. Order Price Per Cwt. $ 9.60 Amount $ 4972.80
3.5% in 201-210 Mile Zone
B/F Diff. $_____ Per Cwt

Base Value as above	Rate Per Cwt. $	Amount $
Additions		
Butterfat Premium 3.5 or over		
Butterfat under 3.5		
Location Differential 241-250 Mile		
Other (describe)		
Gross Amount		4972.80
Deductions		
3rd Party Orders:		
National Bank		
1st National Bank,		
Farmers Home Administrator		300.00
Others		
Purchases Pipeline cleaner		25.00
Butter		5.00
Hauling	.45	233.10
Cooperative Dues Amer. Dairy		40.00
Eastern Milk		
Advertising		26.00
Total Deductions		629.10
Amount of check herewith		# 4343.70

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HOGAN SOUHAN ALL STAR DAIRY

Name and Patron No. J.R. Smith
Period Feb. 1 through March 1
Lbs. Milk 54,200 Av. Test 3.6 %
N. Y. - N. J. Order Price Per Cwt. $ 9.65 Amount $ 5230.30
3.5% in 201-210 Mile Zone
B/F Diff. $_____ Per Cwt

Base Value as above	Rate Per Cwt. $	Amount $
Additions		
Butterfat Premium 3.5 or over	.30	162.60
Butterfat under 3.5		
Location Differential 241-250 Mile		
Other (describe)		
Gross Amount		5392.90
Deductions		
3rd Party Orders:		
National Bank		
1st National Bank,		
Farmers Home Administrator		300.00
Others		
Purchases Pipeline cleaner		35.00
Butter		5.00
Hauling	.45	243.90
Cooperative Dues Amer. Dairy		40.00
Eastern Milk		
Advertising		27.00
Total Deductions		640.90
Amount of check herewith		# 4752.00

Unit 6

Milk Sales

25

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Unit 7

Crop Sales

Objectives

At the completion of this unit, the student will be able to:

1. Correctly enter all receipts from the *sale* of crops in the Crop Sales section of the *Cornell Farm Account Book*.
3. Use the remaining columns to itemize the sales of each crop. For example, in the first unlabeled column, write *Hay* at the top, and enter all hay sales in this column. Do the same for each additional type of crop sold.
4. Total all crop sales and enter this amount at the bottom of column one, *Total Crop Sales*.

How to record crop sales

1. Crop sales are relatively simple to enter. They include the sale of cash crops, crops grown specifically for sale, and the sale of surplus crops.
2. When the money is received for the crops, enter the *date*, the *quantity* sold, a brief *description*, and, in column 1, the *amount* of the sale.

Sample entries

Date	Description	Amount
1/15	16 bales of hay	$ 21.00
2/17	23 bales of hay	31.00
3/19	29 bales of hay	36.00
4/3	24 bales of hay	30.00
4/6	32 bales of hay	42.00
8/27	1/2 ton shelled corn	54.00
10/18	50 bushels wheat	$194.00

CROP SALES

Enter all crop receipts including crop insurance proceeds in column one first. You may allocate crop sales to different kinds of crops by entering the receipt again under a more specific crop heading in another column.

Date	Quantity	Description	1 Enter all items in this column		HAY		SHELLED CORN		WHEAT		____		____		____		____	
1/5	16 bales	hay	$ 21	00	$ 21	00	$		$		$		$		$		$	
2/17	23 "	"	31	00	31	00												
3/19	29 "	"	36	00	36	00												
4/3	24 "	"	30	00	30	00												
4/6	32 "	"	42	00	42	00												
8/27	1/2 ton	shelled corn	54	00			54	00										
10/18	50 bu	wheat	194	00					194	00								
		Total Crop Sales To column 1 page 42	408	00	140	00	54	00	194	00								

Objectives

At the completion of this unit, the student will be able to:

1. Correctly enter livestock sales in the Livestock Sold section of the *Cornell Farm Account Book*.
2. Explain why sales of raised livestock are recorded separately from sales of purchased livestock.

Income: Sales of purchased and raised livestock

Livestock that is sold off a farm can be grouped according to how you **acquire** the animal and what you **plan** to do with it. What would some of these categories be?

1. Example: Sales of raised livestock held primarily for sale.
2. _____
3. _____
4. _____

As you recall from Unit 1, one purpose for keeping accounting records is for filing income tax returns. This is the reason for classifying animals sold off the farm into several categories. Each column heading may be recorded in a different section of the state and federal income tax forms.

The column headings of *Livestock Sold* are the answers to the above question. Compare your answers with the column headings.

Unit 8

Livestock Sold

Unit 8

Livestock Sold

How to record livestock sales

1. Determine the category for the animal sold.
2. In the proper column, enter the *date* of the sale, *description* of the animal(s), *number* sold, *price* received.
3. Make a **mark** (2+) to indicate if the animal was held two years or more. (This information is needed for filing income tax forms.)
4. When the full year's sales have been recorded, total the columns and enter the sum at the bottom of each page.
5. In the small box titled *Summary of Livestock Sales,* enter the totals for each column.
6. Compute the total livestock sales and record the amount.

Sample entries

Date Sold	Date born or purchased	Description	Number	Amount received
1/13		calves	2	$120.00
1/19	born 2/14/75	Ruth #103	1	420.00
1/27	born 5/3/74	Hilda #412	1	400.00
2/5		calf	1	70.00

LIVESTOCK SOLD

Home-Raised Animals					Purchased Animals Sold					Calves				
Date	Description	Number	Amount received		Date	Description	Number	Amount received		Date	Description	Number	Amount received	
7/19	Ruth #103 (2+)	1	$420	00	12/2	#316 purchased 8/4/77	1	$650	00	1/3	Cull calves	2	$120	00
7/27	Hilda #412 (2+)	1	400	00						2/5	" "	1	70	00
3/22	Lucy #86 (2+)	1	420	00						2/11	" "	3	180	00
8/19	Cull #107	1	560	00						3/21	" "	1	75	00
										5/07	" "	1	80	00
										6/10	" "	2	140	00
										6/17	" "	1	75	00
										6/24	" "	2	135	00
										7/15	" "	2	140	00
										7/30	" "	1	75	00
										8/12	" "	1	80	00
Totals		4	1800	00	Totals		1	650	00	Totals		17	1170	00

Unit 8

Livestock Sold

Date sold	Date born or purchased	Description	Number	Amount received	Date sold	Date born or purchased	Description	Number	Amount received
2/11		calves	3	$180.00	8/26		calves	3	$195.00
3/21		calf	1	75.00	9/9		calf	1	70.00
3/22	born 8/5/74	Lucy #36	1	420.00	9/16		calf	1	60.00
5/19	born 7/16/76	Gail #107	1	560.00	10/1		calves	2	110.00
5/27		calf	1	80.00	10/21		calf	1	65.00
6/10		calves	2	140.00	10/22		calf	1	65.00
6/17		calf	1	75.00	11/18		calves	2	115.00
6/24		calves	2	135.00	11/25		calves	2	120.00
7/15		calves	2	140.00	12/2	purch. 3/4/77	cow #316	1	650.00
7/30		calf	1	75.00	12/9		calves	2	115.00
8/12		calf	1	80.00	12/23		calf	1	60.00
8/20		calf	1	80.00					

LIVESTOCK SOLD

Calves					Sale of Livestock Held Primarily for Sale					Other Livestock (Include insurance from livestock lost.)				
Date	Description	Number	Amount received		Date	Description	Number	Amount received		Date	Description	Number	Amount received	
8/20	cull calf	1	$ 80	00				$					$	
8/26	" calves	3	195	00										
9/9	" calf	1	70	00										
9/16	" "	1	60	00										
10/1	" calves	2	110	00										
10/21	" calf	1	65	00										
10/22	" calf	1	65	00										
11/18	" calves	2	115	00										
11/25	" "	2	120	00										
12/9	" "	2	115	00										
12/23	" calf	1	60	00										
Totals		17	1055	00	Totals					Totals				

Summary of Livestock Sales

Home-Raised Animals	1800.00
Purchased Animals Sold	650.00
Calves	1170.00
Calves	1055.00
Sale of Livestock Held Primarily for Sale	.00
Other Livestock	.00
Total Livestock Sales (to page 42)	4675.00

S6

S7

Objectives

At the completion of this unit, the student will be able to:

1. Correctly enter receipts from the farm business that do not fit the preceding categories of farm receipts (that is, crops, milk or livestock).
2. Correctly record an item as a capital or noncapital receipt.

Cash receipts: The odds and ends

Thus far in the account book you have recorded income (receipts) from milk, crop, and livestock sales. Farm businesses receive money from other sources, although perhaps only once a year. Therefore, the *Cornell Farm Account Book* includes a section for recording *miscellaneous recipts.*

On a dairy farm, any receipt that is not from milk, crops, or livestock is entered in the Miscellaneous Receipt section. Can you think of any **farm** receipts to be entered in this section? Write them down.

1. _____

2. _____

3. _____

4. _____

Check your answers with the record on the next page.

It may be difficult to decide whether money received for farm work is a farm receipt or *personal* receipt. (Remember, only farm transactions are entered in the *Farm Account Book.*) As a general rule, any farm-related activity that occurs off the home farm and for which the owner receives money is considered a farm receipt. The amount is entered in the Miscellaneous Receipts section. Can you think of any off-farm work that the owner-operator may do and receive money for? List as many as you can.

1. _____

2. _____

3. _____

4. _____

Before recording receipts, they must be classified as capital or noncapital. Capital items are goods devoted to the production of other goods. Land, buildings, machinery, and equipment are capital items. Noncapital receipts include off-farm work, refunds, and dividends.

How to record miscellaneous receipts

1. Determine whether the item is a capital or noncapital receipt.
2. Enter the receipt in the appropriate subheading. (For example: custom combining classified as a noncapital receipt would be entered in the section titled *work off farm.*)
3. Include the *date* the money was received, and a *description.*
4. After entering all the sample entries, total each section and enter the amount on the lines labeled *Total.* These totals will be used in later units to determine the income of the farm.

Unit 9

Miscellaneous Receipts

Unit 9

Miscellaneous Receipts

Sample entries

Date	Items	Amount received
1/22	Federal gas tax credit	$ 59.00
2/23	Agway Coop. dividend	3.00
2/27	Sold semen for artificial insemination to EABC	10.00
3/5	Manure spreader	150.00

Date	Items	Amount received
5/26	Plowing for Smith's farm	$100.00
7/1	Agway Coop. dividend	5.00
8/6	State gas tax refund	120.00
11/16	Helped neighbor repair tractor	30.00
11/30	Springtooth harrow	150.00

MISCELLANEOUS RECEIPTS

Non-capital receipts				Non-capital receipts (continued)				Capital Items			
Date	Items (kind and quantity)	Amount received		Date	Items (kind and quantity)	Amount received		Date	Items (kind and quantity)	Amount received	
	Refunds and dividends:	$			Work off Farm:	$			Land and buildings:	$	
1/22	Federal gas tax credit	59	00		Machine work						
8/6	State gas tax refund	120	00	5/26	Plowing	100	00				
	Patronage dividends										
2/23	Agway Coop. Dividend	3	00								
7/1	" " "	5	00								
	Total to page 42	187	00		Total to page 42	100	00		Total to page 39	0	
	Government payments:				Other				Machinery & equipment:		
	Conservation payments			2/27	Semen to EABC	10	00	3/5	Manure spreader	150	00
				11/16	Helped neighbor repair tractor	30	00	11/30	Springtooth harrow	150	00
	Other										
	Total to page 42	0			Total to page 42	40	00		Total to page 39	300	00

Unit 10

Summary of Farm Operating Expenses

Objectives

At the completion of this unit, the student will be able to:

1. Correctly forward all totals from previous operating expense sections to the summary.
2. State what is meant by farm share of auto, electricity, and telephone expenses.
3. Adjust operating expenses for personal share.
4. Correctly complete the Summary of Farm Operating Expenses.

Operating expenses: The year's total

The Summary of Farm Operating Expenses is completed to determine the **total** operating expenses for the year. All expenses for the year *except capital purchases* must be totaled and recorded in this summary. This includes data from the following records: Farm Operating Expenses, Summary of Wages Paid, Summary of Social Security Liability, Farm Interest and Debt Payment, and farm operating expenses due to Milk Sales.

Transferring totals from the five records is a straightforward process. There are, however, some operating expenses that are partially farm expenses and partially personal expenses. Can you think of three such expenses? Name them.

1. automobile
2. electricity
3. telephone

The *Cornell Farm Account Book* is for recording only farm receipts and expenses. Expenses that are shared by both the farm business and the owner's household must be adjusted to determine the farm share and the personal share of these expenses. The personal share is **subtracted** from the total cost so that only the farm share is included in the farm operating expenses.

Assume the year-end total for electricity is $1,000. If 20% of the electricity is used in the owner's home, what is the adjusted farm share? $ 800.00

How to summarize farm operating expenses

1. Forward the farm operating expenses total for the year from Unit 2. Record the amounts in columns 1 through 20.
2. Complete the *adjustment* section using the sample entries.
   a. Multiply the percent personal share by the total cost.
   b. Enter this amount in column 1 and the column for the expense. (For example: Auto share is entered in columns 1 and 6.)
   c. Transfer the cost of milk hauling, farm supplies, compensation and business insurance, and milk promotion and cooperative dues from the Milk Sales section, Unit 6.
3. Add the value of **all** adjustments to the *totals for year,* and enter the figure as *totals adjusted.* (Note that the personal share is a **negative** amount.)
4. From the Summary of Wages Paid, Unit 3, forward the amount of *cash wages and value of board.*
5. From the Summary of Social Security Liability, Unit 3, forward the total amount of *Social Security* paid for the year.
6. From Unit 4, Farm Interest and Debt Payment, forward the *interest paid last year* as recorded on the Annual Mortgage Statement.
7. Add these last three expenses to the *totals adjusted* to determine the *total farm operating expenses.*

Unit 10

Summary of Farm Operating Expenses

Sample entries

Personal share of expenses:
20% for auto
20% for electricity
50% for telephone

To complete summary, use data from Units 2, 3, 4, and 6.

SUMMARY OF FARM OPERATING EXPENSES

		1 Enter all items in this column	2 Feed bought	3 Feed bought	4 Machine hire	5 Truck, tractor and other machine expense	6 Auto expense	7 Gasoline and oil	8 Breeding fees
	Totals for year or total to date from page 4-6								
Adjustments	Less personal share of auto % per sh. X $	–					– $		
	Less personal share of electricity % per sh. X $	–							
	Less personal share of telephone % per sh. X $	–							
	Milk hauling from page 24				$				
	Farm supplies from page 24								
	Comp. & bus. ins. from page 24								
	Milk promotion & Coop dues from page 24								
	Totals adjusted								
Additions	Cash wages & value of board from page 13								
	Social Security from page 14								
	Interest from page 17								
	Total Farm Operating Expenses								

SUMMARY OF FARM OPERATING EXPENSES (Continued)

9 Veterinary and medicine	10 Other livestock expense	11 Lime and fertilizer	12 Seeds and plants	13 Spray and other crop expense	14 Land, building, and fence repair	15 Taxes	16 Insurance	17 Electricity	18 Telephone	19	20 Miscellaneous
	$						$	– $	– $		$

Unit 11

Summary of Farm Inventory and Farm Net Worth

Objectives

At the completion of this unit, the student will be able to:

1. Enter inventory totals on the correct lines in the Summary of Farm Inventory and Farm Net Worth of the *Cornell Farm Account Book*.
2. Determine any increases or decreases in livestock inventory and feed and supply inventory, when given the beginning- and end-of-year inventory totals.
3. Correctly compute farm net worth (equity capital).
4. Define interest on farm net worth.
5. Correctly compute the interest on farm net worth when given the current interest rate and farm net worth.

How do previous years' transactions affect this year's income?

Through units 1 through 10, we have been concerned with business transactions of the **current year.** In this unit, we are concerned with this year's transaction *and* also with how the **previous** years' transactions affect the farm's income. The affect of all accumulated assets and liabilities on this year's income is determined on the Summary of Farm Inventory and Farm Net Worth section of the account book.

Definition of terms

There are four new terms used in this unit: assets, liabilities, net worth, and interest on farm net worth. Each one must be fully understood before completing the summary.

A farm **asset** is anything that the farm business **owns** that has a commercial value at the time inventory is taken. List four examples of a farm asset.

1. land and buildings
2. cattle and livestock
3. machinery and equipment
4. feeds and supplies

Your list of assets should include items such as livestock, feed and supplies, machinery, equipment, and land. These are also items that the farmer owns and could sell for cash at anytime.

A farm **liability** is the opposite of an asset. Liabilities are sums of money the farmer **owes** to people or businesses. Liabilities are debts. List two examples of a farm liability.

1. mortgage on the farm
2. short term loans for purchase of machinery, fertilizer, etc.

According to the above definitions, livestock that a farmer owns is a/an asset, and the mortgage on the farm is a/an liability

If the farmer were to sell everything (assets) and pay all the debts (liabilities) what would be left? **The farm net worth.** The farm net worth is the total assets less the total farm liabilities. Farm net worth is also called **equity capital.**

Farm net worth (equity capital)	=	total assets	–	total liabilites

The final calculation for the summary is the **interest on farm net worth.** This interest is a noncash expense of the farm business. The interest on farm net worth represents what the farm owner-operator might have earned if he/she had invested his/her money (equity capital) in something other than farming. For example, if a farmer sold all of her/his assets, paid off the liabilities, and invested the money (equity capital) in a bank, the investment would earn interest. By investing the money in the farm business instead, the farmer is sacrificing this interest. Thus, this interest (interest on farm net worth) is considered a farm **expense.**

The current interest rate being used is 7%.

Farm net worth × .07 = interest on farm net worth

Unit 11

Summary of Farm Inventory and Farm Net Worth

How to complete the summary of farm inventory and farm net worth

1. Enter the *beginning* and *end* of the year inventories for *cattle, feed and supplies, machinery and equipment,* and *land and buildings.*
2. Enter the difference in year-end inventories for *cattle* and *feed and supplies* under the column titled *increase or decrease.* If the inventories have increased over the year, put a plus (+) sign before the amount of the increase. If the inventories have decreased, put a minus (−) sign before the amount.
3. Add the year-end inventories and enter this amount on the line titled *total farm inventories.*
4. Enter the value of any other farm assets.
5. Add this amount to the total farm inventories to determine *total farm assets.*
6. Enter the *total farm liabilities* on the next line.
7. Subtract this value from the total farm assets to determine the *farm net worth* (equity capital) for the beginning of year and end of year.
8. Compute and enter the *average farm net worth.* The average farm net worth is the sum of the beginning- and end-of-year net worth divided by 2.
9. Compute the interest on average farm net worth by multiplying the *average farm net worth* by 7% (.07). Enter this amount on the line titled *interest on ave. farm net worth.*

Sample entries

	Beginning of the year	End of the year
cattle	$ 43,800	$ 49,600
feed and supplies	19,300	29,300
machinery and equipment	42,900	56,100
land and buildings	104,800	122,400
other farm assets	8,800	6,600
total farm liabilities	66,900	70,500

The owner-operator would find these figures in the farm's inventory records.

SUMMARY OF FARM INVENTORY AND FARM NET WORTH

Enter from your Cornell Farm Inventory Book totals for beginning and end of current year.

Item	From Page	Beginning of year	End of year	Increase or decrease
Cattle	38	$43,800	$49,600	$+5,800 to page 42
Other livestock				to page 42
Feed and supply	38	19,300	29,300	+10,000 to page 42
Machinery and equipment	38	42,900	56,100	} to page 39
Land and buildings	38	104,800	122,400	
Total farm inventories		$210,800	$257,400	
Other farm assets	38	8,800	6,600	
Total farm assets	38	219,600	264,000	
Total farm liabilities	38	66,900	70,500	
Farm net worth	38	$152,700	$193,500	$
Average farm net worth		$ 173,100		
Interest on ave. farm net worth (owned capital), 7 % X $ 173,100 =		$ 12,117 to page 42		

Unit 12

Calculation of Depreciation

Objectives

At the completion of this unit, the student will be able to:

1. Correctly compute the net depreciation values for machinery and equipment and land and buildings.

Depreciation: How much less is it worth?

In Unit 5, Capital Expenses, depreciation was defined as the **decrease in value** of an item owing to causes such as wear, tear, and outdatedness. The amount that each piece of equipment and machinery, land, and buildings decreased in value during the year is recorded as a farm business expense for the year.

To calculate the amount of depreciation, the owner-operator must compare the *end-of-year inventory* to the *beginning-of-year inventory.*

How to calculate depreciation

1. Forward from the Summary of Farm Inventory and Farm Net Worth (Unit 11) the beginning- and end-of-year inventories for *machinery and equipment* and *land and buildings.*
2. Forward from the Capital Purchases and Improvements (Unit 5) the total values of *new machinery and equipment* and *new real estate.*
3. Add the value of the new items to the beginning inventories. Enter the amount as *total beginning and new.*
4. Forward from Miscellaneous Receipts (Unit 9) the total value of *machinery and equipment sold* and *land and buildings sold.*
5. Add the value of the items sold to the end inventories. Enter the amount as *total end and sold.*
6. Subtract the *total end and sold* from the *total beginning and new* for both *machinery and equipment* and *land and buildings.* Enter this figure as the amount of *depreciation.*

CALCULATION OF DEPRECIATION

Machinery and Equipment			Land and Buildings		
Beginning inventory	$ 42,900		Beginning inventory	$104,800	
New machinery and equip. (from page 41)	17,000		New real estate (from page 41)	28,000	
Total beginning and new		$ 59,900	Total beginning and new		$132,800
End inventory	$ 56,100		End inventory	$122,400	
Machinery and equip. sold (from page 39)	300		Land & buildings sold (from page 39)	0	
Total end and sold		$ 56,400	Total end and sold		$122,400
Machinery and equipment depreciation (Total beginning and new less total end and sold)		$3,500 (to page 42)	Real estate depreciation (Total beginning and new less total end and sold)		10,400 $ (to pg. 42)

80

81

Objectives

At the completion of this unit, the student will be able to:

1. Forward data from all available expense and receipt records to the correct space on the Summary of Farm Receipts and Expenses.
2. Calculate the total farm receipts and total farm income using available data.
3. Calculate the farm income when given the total farm receipts and expenses.
4. Calculate the labor and management income when given the farm income and the interest on farm net worth.

Income and expenses: Putting it all together

In this unit you will determine if the farm had a *profit* or a *loss*. All the dollar values that you entered in the preceding units will be transferred to this summary section. Using the values, you will calculate **two measures of profit:** farm income and labor and management income. Farm income is simply the total farm receipts less the total farm expenses. Labor and Management Income is the financial return to a farm operator for his/her labor and management skills. It is calculated by subtracting the interest on average farm net worth from the farm income. If there is more than one operator, you should divide the farm labor and management income by the number of operators.

Complete the following:

total receipts minus total expenses =

farm income

farm income minus interest on average net worth =

labor and mgt. income

Unpaid family labor is included as an expense when summarizing the year's expenses and receipts. If no money was paid to family members working on the farm, why is unpaid family labor included as an expense?

Unpaid family labor is included as an expense. To allow valid comparisons between a farm with all hired labor and one with all unpaid family labor.

An increase in *cattle and livestock* and/or *feed and supplies* inventories is entered as a business receipt. A decrease in these inventories is entered as an expense. Why is the decrease in value of a farm's livestock considered an **expense** to the business?

If some cattle had been sold during the year, the value would appear as a receipt and the cost is expressed in the decrease which is considered an expense.

How to summarize farm receipts and expenses

1. To complete all spaces in the first column of the Summary, forward from the Summary of Operating Expenses (Unit 10) the adjusted totals for columns 2–20, *cash wages paid, Social Security paid on labor,* and *interest paid.*
2. Add all operating expenses, and enter the amount on the bottom line, titled *total farm operating expense.* (This figure should equal the total recorded in Unit 10.)
3. Forward the *total farm operating expense* to the next column.
4. On line 2, enter the amount for *cattle and livestock purchased* from Unit 5.
5. On line 3, enter the amount for *machinery and equipment depreciation* from Unit 12.

Unit 13

Summary of Farm Receipts and Expenses

Unit 13

Summary of Farm Receipts and Expenses

6. On line 4, enter the amount for *real estate depreciation* from Unit 12.
7. From the Summary of Farm Inventory and Farm Net Worth (Unit 11), forward the amount by which inventory changed. If there was a *decrease* in cattle and livestock inventory or feed and supply inventory, enter the decrease on lines 5 and 6. If there was an *increase* in these inventories, enter the increase on lines 16 and 17.
8. Upaid family labor is included as an expense to allow valid comparisons between farms with no unpaid family labor, such as this one, and farms that have a significant amount of unpaid family labor. Estimate the value of *unpaid family labor* and enter it on line 7.
9. Add all expenses (lines 1–7), and enter the *total farm expense* on line 8.
10. Complete lines 9–15 by referring back to the appropriate units and forwarding the year's totals for each one.
11. Add all receipts (lines 9–17), and enter the *total farm receipts* on line 18.
12. Forward the *total farm expenses* from line 8 to 19.
13. Subtract total expenses from total receipts to determine *farm income.* Enter this amount on line 20.
14. Forward to line 21 the *interest on average farm net worth* for the year from Unit 11.
15. Subtract the interest from farm income to determine the *labor and management income.* Enter the value on line 22.
16. Divide the labor and management income by the number of operators. Enter the value on line 23.

SUMMARY OF FARM RECEIPTS AND EXPENSES

Operating Expenses	Items from page	Amount	Expenses and Receipts	Items from page	Amount
Cash wages paid (include value of board)	36	4344 00	1. **Total Farm Operating Expense**		58263 98
Social Security paid on labor	36	1227 96	2. Cattle and other livestock purchased	21	6200 00
Feed bought	36	16800 00	3. Machinery and equipment depreciation	39	3500 00
Feed bought	36	100 00	4. Real estate depreciation	39	10400 00
Machine hire (include milk hauling)	36	8000 00	5. Decrease in cattle & livestock inventory	38	00
Truck, tractor, machine exp.	36	3000 00	6. Decrease in feed & supply inventory	38	00
Auto expense (farm share)	36	480 00	7. Unpaid family labor (mo.)		00
Gasoline and oil	36	1800 00	8. **Total Farm Expenses**		78163 98
Breeding fees	36	940 00	9. Milk sales	24	78049 45
Veterinary and medicine	36	900 00	10. Crop sales	27	408 00
Other livestock expense	36	700 00	11. Livestock sold	31	4675 00
Lime and fertilizer	36	2500 00	12. Misc. receipts: Refunds & dividends	34	187 00
Seeds and plants	36	1200 00	13. Govt. payments	34	00
Spray, other crop expense	36	2000 00	14. Work off farm	34	100 00
Land, building, fence repair	36	800 00	15. Other	34	40 00
Taxes	36	1700 00	16. Increase in cattle & livestock inventory	38	5800 00
Insurance	36	1000 00	17. Increase in feed & supply inventory	38	10000 00
Electricity (farm share)	36	1200 00	18. **Total Farm Receipts**		99259 45
Telephone (farm share)	36	500 00	19. **Total Farm Expenses**		78163 98
	36		20. Farm income		20975 47
Interest paid*	36	3890 00	21. Interest on average farm net worth	38	12117 00
Miscellaneous	36	1870 00	22. **Labor income**		8858 47
Total Farm Operating Expense		58263 98	23. Labor income per operator		8858 47

9.1

Unit 14

Labor Requirements for Livestock and Crops and the Farm Business Chart

Objectives

At the completion of this unit, the student will be able to:

1. Define the terms *work unit* and *man equivalent.*
2. Calculate the number of work units needed to grow a crop by referring to the Summary of Livestock, Crops, and Labor (page 57, *Cornell Farm Account Book*).
3. Calculate the number of man equivalents when given the number of months of work for the farm's labor force.
4. Enter provided data and correctly complete the Summary of Livestock, Crops, and Labor.
5. Transfer data from a completed Summary of Livestock, Crops and Labor to the Farm Business Chart.
6. When given a farm's crop yield, state how the farm's production compares with other farms in New York according to the Cornell University Farm Business Chart.

How does your farm compare with others?

To answer this question, first you must take a close look at your farm business.

Every business manager should know whether his/her enterprise is producing at its maximum level. The farmer is no exception. If her/his farm is not producing at its maximum potential, the farmer must identify where the weakness lies:

- Should a different crop be planted?
- Are the crop production rates too low? If so, why?
- Are the livestock production rates too low? If so, why?
- Is the farm too small or too large for the business?
- Do the workers accomplish their tasks in a reasonable amount of time?

How does the farmer know if the farm's production is low, high, or average?

The Farm Business Chart allows farmers to compare information about their farm with other farms — such information as production per cow, production per acre, and work accomplished per employee. The Summary of Livestock, Crops, and Labor is designed to help the farmer compute this information. It lists the standard amount of time required to complete a job, such as produce one acre of hay or manage one producing dairy cow. To compare farms that differ in size and labor force, all data is converted to **work units** and **man equivalents.**

A work unit is the amount of work a person will accomplish in a **10-hour day** given average farm conditions and usual farm tasks.

On the Summary page, look at the section titled *Work Units for Livestock and Crops.* Under the heading *Livestock, dairy cows* is listed. Note in the first line a number 7 under the column heading *work units per head or per acre.* This is the average number of work units needed to care for one dairy cow over a period of one year. The 7 work units are equal to 70 hours of work.

Continue down the column on the left side of the page and answer the following questions.

1. How many work units are needed to grow 1 acre of hay? .6
2. How many hours would this be? 6

Man equivalent is also a unit of measure used to compare farms.

A man equivalent is **12 months** of full-time employment of one person; 230 hours of part-time or seasonal labor is considered equal to 1 month of full-time employment. **All** labor used on the farm must be included when calculating total man equivalents. Which category of labor listed on the summary page under *man equivalent* is not included in the labor expense unit? unpaid family labor

Why isn't this category of labor included in the labor expense unit? no outflow of money. therefore no expense.

Unit 14

Labor Requirements for Livestock and Crops and the Farm Business Chart

Sample problems in computing man equivalents

1. If a farm had two full-time workers, an owner-operator, and an additional 6 months of full-time seasonal labor, how many man equivalents would this firm have? 2.5

   (Remember: 1 man-equivalent = 12 months full-time work)

Worker	Full-time months
owner	12
two workers	24
seasonal labor	6
total months	42

$\frac{1 \text{ man-equivalent}}{12 \text{ months}} \times \frac{42}{} \text{ months} = \frac{3.5}{} \text{ man-equivalent}$

2. If the owner in problem 1 had two of his/her children working without pay for a total of 10 months per year, how many man equivalents would this farm have?

Worker	Full-time months
from problem 1	42 months
2 children	10 months
Total	52 months

$\frac{1 \text{ man-equivalent}}{12 \text{ months}} \times 52 \text{ months} = 4.3 \text{ man-equivalent}$

How to complete the summary of labor requirements for livestock and crops

1. Using sample entries, enter the number of head of livestock raised and the number of acres of each crop grown under *number of acres on this farm.*
2. For each type of livestock raised, multiply the *number of head* by the *work units per head* to determine the *total work units.* Enter this figure in the space provided.
3. For each crop grown, multiply the *number of acres* by the *work units per acre* to determine the *total work units.* Enter this figure in the space provided.
4. Add the column of total work units for each type of livestock and crop, and enter the figure at the bottom of the page, *TOTAL WORK UNITS.*
5. For each crop, enter the *yield per acre.* Multiply the number of acres by the yield per acre to determine the *total crop.*
6. Compute the number of *full-time months* for this farm. Use the data from Unit 3 for Bill Jones, Laura Brown, and Carol Smith. Remember: 230 hours is considered equal to one month of full-time employment.
7. Enter the full-time months for the owner-operator and each employee under *Man Equivalent*.
8. Calculate the total full-time months and divide it by 12 to determine the number of *man equivalents* for the farm.
9. Divide the *total work units* by the *man equivalent.* Enter the figure in the box titled *work units per man.*
10. To complete the section at the bottom of the summary, forward the *total pounds of milk sold* from the Milk Sales record, Unit 6.
11. Transfer the *number of cows* and *man equivalent* from above the line and complete the calculations

Sample entries

Livestock		Number of head
Cows		53
Heifers (calves)		33
Crops	**Acreage**	**Yields/Acre**
Hay	73	2.4 tons
Corn silage	35	14 tons
Corn for grain	20	98 bushels
Wheat	10	46 bushels

How to use the Farm Business chart

1. Read the directions given at the bottom of the Farm Business Chart (page 48).
2. Transfer information from the Summary of Livestock, Crops, and Labor to the chart. For example: If the tons of hay produced per acre is 2.4, the entry on the chart would be:

Tons of Hay
3.8
3.0
2.7
2.2
2.1
1.9
1.7
1.5
1.2

(Note that page 47 provides a list of labor requirements — work units — for enterprises not listed in the summary.)

3. Identify the strengths and weaknesses of this farm business.

Unit 14

Labor Requirements for Livestock and Crops and the Farm Business Chart

Unit 14

Labor Requirements for Livestock and Crops and the Farm Business Chart

Summary of Livestock, Crops and Labor

WORK UNITS FOR LIVESTOCK AND CROPS

	Number or acres on this farm		Work units per head or per acre		Total work units
LIVESTOCK					
Dairy Cows	53	×	7	=	371
Beef Cows		×	2	=	
Heifers	33	×	2	=	66
Hens (production only)		×	0.04	=	
Pullets raised		×	0.002	=	
Brood sows		×	3	=	
Hogs raised		×	0.15	=	
Ewes		×	0.5	=	
		×		=	
CROPS					
Hay	73	×	0.6	=	43.8
		×		=	
Corn Silage	35	×	0.8	=	28
Corn for grain	20	×	0.6	=	12
Oats		×	0.6	=	
Wheat	10	×	0.6	=	6
		×		=	
		×		=	
Dry beans		×	1.5	=	
Potatoes		×	6	=	
Cabbage		×	9	=	
Snap beans for processing		×	1	=	
Onions		×	12	=	
		×		=	
		×		=	
Apples–growing		×	4	=	
Apples–harvest–per bushel		×	0.02	=	
OTHER					
Work off farm, days		×	1	=	
Marketing		×		=	
		×		=	
			TOTAL WORK UNITS		526.8

MAN EQUIVALENT

Workers	Full-Time Months
Operator(s)	12
Family (paid)	6.2
Family (unpaid)	0
Hired men	12
Other	1.7
Total	31.9
Man equivalent (Total ÷ 12)	2.7

Yield per acre	Total Crop	
2.4	175.2	tons
		tons
14	490	tons
98	1960	bu.
		bu.
46	460	bu.
		lbs.
		cwt.
		tons
		tons
		cwt.
		bu.

WORK UNITS PER MAN

(Total work units ÷ man equivalent)

$\frac{526.8}{2.7} = 195.1$

Total pounds of milk sold	796,423	÷	no. of cows	53	= 15,027 pounds of milk sold per cow
Total pounds of milk sold	796,423	÷	man equivalent	2.7	= 294,971 pounds of milk sold per man
Number of cows	53	÷	man equivalent	2.7	= 19.6 cows per man

Productive Man Work Units*

A productive man work unit is the average amount of productive work accomplished in **10 hours.** The total number of work units on a farm represents the number of 10-hour units of time that would be required, under average conditions, to care for the acreage of crops grown and the number of livestock kept.

The number of productive man work units on a farm is calculated by multiplying the acres or amount of each crop and the number of each kind of animal by units that have been caculated on the basis of the average amount of time required to handle one acre or one animal.

Units for the most common livestock and crops in New York are given in the summary on page 46. Units for some other enterprises are given below. For enterprises not listed, estimate the labor requirements.

Vegetables for processing
(work units per acre)

Lima beans	2
Beets	5
Broccoli	10
Carrots	10
Sweet corn	
Growing	1
Harvesting	1
Peas	1
Spinach	2
Tomatoes	12

*This sheet supplements the information given in the Summary of Livestock, Crops, and Labor.

Forest products
(work units per quantity listed)

1000 board feet of logs	1
100 fence posts	1.5
1 cord pulpwood	1
1 standard cord of fuelwood in 4 foot lengths	1
1 standard cord of fuelwood cut to stovewood length (3 to 3 1/2 cords stovewood)	1.5
1 gallon maple syrup	0.15

Vegetables for fresh market
(work units per acre)

Snap beans (hand harvested)	15
Cauliflower	18
Celery	20
Sweet corn	4
Cucumbers	10
Lettuce	10
Melons	10
Squash	10
Tomatoes	20

Fruit
(work units per acre)

CROP	GROWING	HARVESTING
Cherries	2	3 per ton
Grapes for processing	7	0.5 per ton
Table grapes	7	1.5 per ton
Peaches	5	4 per 100 bu.
Pears	3	2 per 100 bu.
Plums, prunes	3	4 per 100 bu.
Raspberries	10	2 per 100 qts.
Strawberries	20	1 per 100 qts.

Unit 14

Labor Requirements for Livestock and Crops and the Farm Business Chart

Unit 14

Labor Requirements for Livestock and Crops and the Farm Business Chart

FARM BUSINESS CHART

Success in farming is the result of many factors. Farm business studies show that the most important factors under the farmer's control are size of business, production rates of crops and animals, labor efficiency and selection of enterprises.

The chart below shows the range of the experience of commercial farmers in New York with respect to size of business, production rates and labor efficiency.

The figure at the top of each column is the median of the highest ten per cent of the farms in that factor. For example, the figure 3.8 at the top of the column headed "Tons of Hay" is the median of the ten per cent of the farms with the highest yield of hay. The other figures in the column are the medians for "the next best 10 per cent," "the 10 per cent below that," and so forth. The figure 1.2 at the bottom of the column is the median of the ten per cent of the farms with the lowest yield of hay.

Each of the columns is independent of the others. The figure 22 at the top of the column headed "Tons of Corn Silage" is the median of the ten per cent of the farms with the highest yield of corn silage.

Hay, Silage, Grain Yields per Acre					Vegetable Yields per Acre							Fruit Yields per Acre			
Tons of Hay	Tons of Corn, Silage	Bu. of Corn	Bu. of Oats	Bu. of Wheat	Lbs. of Dry Beans	Cwt. of Potatoes	Tons of Cabbage	Cwt. of Onions	Tons of Tomatoes	Net Tons of Sweet Corn	Tons of Snap Beans	Bu. of Apples	Bu. of Pears	Tons of Grapes	Tons of Sour Cherries
3.8	22	125	95	58	2,300	340	33	470	23	7.5	3.0	550	330	7.5	6.6
3.0	19	105	83	52	1,900	305	28	410	19	6.6	2.7	490	260	6.0	5.1
2.7	17	95	78	47	1,700	285	25	370	17	5.9	2.5	440	230	5.5	4.1
2.4	16	88	67	44	1,500	265	22	345	15	5.5	2.3	400	200	5.0	3.5
2.2	15	82	62	41	1,300	250	20	320	14	5.2	2.1	365	180	4.6	3.1
2.1	14	78	58	39	1,100	240	18	300	13	5.0	2.0	335	160	4.2	2.8
1.9	13	70	54	37	1,000	225	16	280	12	4.7	1.9	305	140	3.8	2.5
1.7	12	60	50	34	900	205	14	250	11	4.2	1.7	270	120	3.4	2.1
1.5	11	50	45	30	800	185	12	220	10	3.6	1.5	230	100	3.0	1.7
1.2	8	35	35	25	600	150	10	170	9	3.0	1.3	190	70	2.5	1.3

Dairy Farms				Labor			Poultry Farms				
Number of Cows	Pounds of Milk Sold	Pounds Milk Sold per Cow	Cows per Man	Pounds of Milk Sold per Man	Total Work Units	Man Equivalent	Work Units per Man	Number of Hens	Eggs Sold per Hen	Hens per Man	Dozens of Eggs Sold per Man	Pounds Feed per Dozen Eggs
100	1,100,000	15,000	40	515,000	1,000	3.5	420	75,000	250	12,000	245,000	3.8
65	700,000	12,900	34	385,000	720	2.7	340	35,000	240	9,500	180,000	4.1
52	560,000	11,800	30	325,000	590	2.3	310	25,000	235	7,500	130,000	4.4
43	470,000	11,100	26	280,000	520	2.0	290	18,000	230	6,000	105,000	4.5
40	415,000	10,400	24	245,000	460	1.8	270	12,000	225	5,000	90,000	4.6
37	365,000	9,800	22	220,000	430	1.6	250	9,500	220	4,000	80,000	4.7
33	325,000	9,200	21	200,000	390	1.4	230	7,000	215	3,500	70,000	4.8
29	275,000	8,400	20	185,000	350	1.3	210	5,200	210	3,000	60,000	5.0
25	220,000	7,600	18	170,000	310	1.2	190	4,000	205	2,500	50,000	5.2
20	160,000	6,500	15	130,000	250	1.0	160	3,000	195	2,000	40,000	5.6

HOW TO USE THIS CHART

Draw lines in each column to show the rank of the farm business being studied. For example, if the farm produced 57 bushels of oats per acre draw a line in the "oats" column between 56 and 60.

Draw heavy lines so that you can see them easily.
Do not draw lines for factors which are of only minor importance on the farm being studied.

Unit 15

Electronic Accounting Programs

Objectives

At the completion of this unit, the student will be able to:

1. List five computerized farm accounting programs available in New York State.
2. State one advantage and one disadvantage of a computerized accounting program compared with a manual accounting program.

Electronic accounting programs: An alternative

We are well into the age of computers. These machines have made radical changes in business operation, management, and the processing of information. Their application to farm businesses has been taking place for many years.

One of the first computerized systems available to farmers was an electronic farm accounting program. The basic program is a monthly mail-in system: at the end of each month each farmer mails in all business transactions. The information is coded and fed into a computer. The results of the computer's calculations are printed in a summary form and are mailed back to the farm operator.

There are two primary **advantages** to computerized accounting programs. (1) Since you pay for the service, there is greater incentive to record transactions and mail information on time. In a sense, you are forcing yourself to keep accurate, up-to-date records. (2) The systems give you a monthly comparison of the year's receipts and expenses to date with those of last year.

Most electronic accounting programs include more in their base programs than the monthly summary of transactions. Services such as income tax information, consultation on business affairs, farm visits, and checkbook services are included. For an additional fee (above the cost of the base program) a farm owner can receive options such as depreciation schedules, labor summaries, household accounts, and income tax returns. The advantage is that calculations are made automatically, so the farmer receives information which she/he may not have taken time to calculate.

The sole **disadvantage** of the electronic accounting program is the cost. Many feel that this disadvantage is offset by the fact that farm operators take record keeping more seriously because of the fees. The chart on the following page compares the different electronic accounting programs available to farmers in New York State.

Electronic farm accounting programs provide families with useful management information. However, to be able to use this information, the family must understand the basic concepts of record keeping, as taught in relation to the use of the *Cornell Farm Account Book* system.

Unit 15

Electronic Accounting Programs

Computerized Farm Accounting Programs Operating in the Northeast, 1976–1977

Accounting system	Basic program emphasis	Extras or options	Annual fees	Cooperation or coordination
AGRIFAX (Farm Credit System)	Business management; management counseling; tax service; monthly mail-in	Office coding; payroll record enterprise coding; cash flow; depreciation schedule; proving to bank balance; taxes	$250 up depending on size of business (income or cows) and extra options	Farm Credit managers and county extension agents
PROFILE (Agway)	Monthly mail-in; also account book & check system; tax service; consulting on business affairs	Consulting service; income tax returns; estate planning; 3 visits & pick up information for tax purposes	$436, average $326–750 range	Field representatives
CAMIS (Cornell)	Monthly mail-in; farm business management decision making	No extra cost for: Cash flow, business analysis, labor summary, credit accounts, household account, depreciation schedule, income tax work sheet, etc.	$175–275 depending on size of business; discount if records kept up to date	County extension agents and college personnel
Farm Bureau	Tax work; monthly mail-in; also account book and checkbook system; may include farm visits	Extra fee for: financial management; cash flow; income tax return; farm visits	$250–700 tax returns; $25 extra; plus $7 for each schedule; farm visits at $15/hour; office visits $12/hour; amended tax return $25.	Field representatives
ELFAC (New England)	Monthly mail-in; farm business management	Depreciation schedule & investment credit; tax work sheet	$35 for 35 cows, then $1.50 per cow; $20 for depreciation and investment credit schedules	County and state extension personnel
P.S.U. (Penn State)	Monthly mail-in; farm business analysis; no tax service	Extra fee for entry pages beyond base, quarterly statement and monthly cash flow	$150–250	Extension specialists and college personnel

Glossary

allowance — a good or service given to the worker as partial payment of wages, the value of which is included when computing minimum wage

amortization — the repayment of a debt by installments which usually include payments on both the principal and the interest

asset — anything owned that has a commercial value at the time inventory is taken; the opposite of liability

average net worth — the sum of the beginning of the year and end of the year net worth divided by 2

board — meals

boot money — the difference between the cost of a new item and the value of the trade-in

capital expense — the cost of an item that has an expected useful life of more than one year

capital item — a good devoted to the production of other goods

Cornell Farm Account Book — a manual record of all expenses and receipts of a farm business

decreasing payment plan — the repayment of a loan whereby a set portion of the principal is paid on each installment date along with the interest charge on the unpaid balance of the principal

deduction — a part of the gross cash wage held back by the employer for a specific purpose

depreciation — the amount an item decreases in value due to causes such as wear, tear, and outdatedness; a farm business expense

electronic accounting program — a computerized system of keeping a record of expenses and receipts and summarizing data

equal payment plan — the repayment of a loan whereby an equal amount is paid on each installment date; the amount of principal and interest change with each payment

farm business chart — a device prepared to allow comparison of farms

farm income — a measure of profit; the total farm receipts less the total farm expenses

gross cash wage — the cash wage paid plus value of deductions

interest charge — the rent paid for the use of money; one part of a loan installment; an operating expense

interest on farm net worth — the amount of money that might have been earned if the amount of net worth was invested in something other than farming

labor and management income — a measure of profit; the financial return to the farm operator for his/her labor and management skills; the farm income minus the interest on average farm net worth

labor cost — an operating expense paid for services rendered

liability — a sum of money that is owed; a debt; the opposite of asset

loan payments — money paid on a debt, consisting of an amount paid to reduce the principal plus an interest charge on the unpaid balance of the loan

man equivalent — a unit of measure that equals 12 months of full-time employment of one person; a unit computed to measure the production efficiency of a farm business

management — the ability to make good use of your resources — money, labor, machinery, animals, and land

miscellaneous receipts — money received for items other than the primary produce of the farm, such as milk, crops, or livestock

mortgage — a pledge of property as security on a debt

net worth — the value of total assets less the value of total liabilities; equity capital

operating expense — the cost of an item purchased for the business that (1) has an expected useful life of less than one year or (2) has an initial cost of less than $100

principal payment — the part of the loan installment that goes toward paying off the original amount of money borrowed

receipt — cash received from the sale of an item

regular labor — labor (full-time or part-time) hired on a continuous basis throughout the year

seasonal labor — labor that is hired for a few days or few weeks during the year

Social Security — a program whereby the government holds money to be paid to a person in regular checks when the person retires or is disabled

Glossary

work unit — the amount of work a person will accomplish in a 10-hour day given average farm conditions and usual farm tasks; computed to measure the production efficiency of a farm business